

1. STARKOV, A. A.
2. USSR (600)
3. Wheat
4. Results of seeding spring wheat with seeds from autumn and spring sowings. Sel.i sem.  
20 No. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

83207

S/119/60/000/008/008/008  
B019/B056

9.4174

AUTHORS:

Krol', L. Ya., Candidate of Technical Sciences, Nadzhip, F.E.,  
Engineer, Nashel'skiy, A. Ya., Candidate of Technical  
Sciences, Starkov, A. I., Engineer

TITLE:

Thermocouples Made From Intermetallic ZnSb and CdSb  
Compounds

PERIODICAL:

Priborostroyeniye, 1960, No. 8, pp. 28-29

TEXT: The work discussed was performed at the Gosudarstvennyy nauchno-  
issledovatel'skiy i proyektnyy institut redkometallicheskey promyshlennosti  
"Gidredmet" (State Scientific Research and Planning Institute of the  
Rare-earth Metal Industry "Gidredmet"). By way of introduction, the  
authors mention several fields of application of semiconductor thermo-  
couples, and discuss a formula for the electric energy generated by  
thermocouples. The good physical properties of zinc- and cadmium-  
antimonide for the use as thermocouples may be seen from Table 1. The  
characteristics of thermocouples made from compounds of this kind are  
given in Table 2, which were suggested by the institut poluprovodnikov

Card 1/2

ZELENSKIY, V.D.; KIRZHAYEV, N.I.; SUKALO, M.Kh.; STARKOV, A.N.,  
spets. red.; DANILOVA, Z.S., red.

[Concise French-Russian armor dictionary] Kratkii frantsuzsko-  
russkii avtobronetankovyi slovar'. Moskva, Voenizdat, 1964.  
429 p. (MIRA 17:6)

1. YARMIZIN, D. V.; STARKOV, A. S.
2. USSR (600)
4. Rostov Province - Irrigation Farming
7. Problems of plant breeding and seed production work in irrigated areas of Rostov Province. Sel. 1 sem. 20, No. 5, 1953.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001652920011-4

reaction mixt.

A. P. Kotloby

11

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001652920011-4"

STREKOV, A.V., Cand Tech Sci--(disc) "Separation of certain  
mixtures <sup>by</sup> ~~via~~ extraction in pulverized columns." Mos, 1958. 15 pp  
(Min of Higher Education USSR. Mos Inst of Fine Chem Technology im  
K. V. Leninskoy), 200 copies (KL,22-58,110)

-110-

5.3831(A)

~~5(1), 5(3)~~  
AUTHORS:

L'vov, S. V., Pal'kovskiy, V. B.,  
Starkov, A. V.

67039

SOV/153-2-5-24/31

TITLE:

Synthesis of New Monomers by Catalytic Dehydrogenation of  
Polyalkyl Benzenes in the Presence of Steam

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya  
tekhnologiya, 1959, Vol 2, Nr 5, pp 776 - 778 (USSR)

ABSTRACT:

The present paper deals with the dehydrogenation of polyethyl-  
and polyisopropyl benzenes to aromatic products which contain  
in the side chain vinyl- or isopropenyl-groups. This was carried  
out in a conventional dynamic system on self-regenerating cata-  
lysts (volume 30-70 cm<sup>3</sup>). The initial raw materials were mixtures  
of isomers of the dialkyl- and trialkyl benzenes. Figure 1 shows  
the dehydrogenation results of the diiso- and triisopropyl ben-  
zenes on the catalyst K-1 at 575-650°C. It shows that the yield  
of unsaturated liquid products increases with the increase in  
temperature, and with the decrease in the volume velocity of the  
introduction of reagents. The results also show that the diiso-  
and triisopropyl benzenes may be dehydrogenated at about equal  
velocities. Similar results were obtained with the catalyst K-2  
at 600-875°C (Fig 2). At a volume velocity of the liquid polyalkyl

Card 1/2

L'VOV, S.V.; STARKOV, A.V.; FAL'KOVSKIY, V.B.; TIKHONOVA, N.K.

Dehydrochlorination of dichloroethane in packing-free columns.  
Zhur.prikl.khim. 34 no.8:1894-1895 Ag '61. (MIRA 14:8)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni  
M.V. Lomonosova.  
(Ethane) (Ethylene)



KOSTYUK, N.G.; L'VOV, S.V.; FAL'KOVSKIY, V.B.; STARKOV, A.V.; LEVINA, N.M.

Preparation of anhydrides of higher carboxylic acids by the  
reaction of transanhydridization. Zhur.prikl.khim. 35 no.3:  
698-699 Mr '62. (MIRA 15:4)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni  
M.V.Lomonosova.

(Anhydrides)

L'VOV, S.V.; FAL'KOVSKIY, V.B.; KOSTYUK, N.G.; STARKOV, A.V.; GOLENKOVA,  
I.B.; KUSKOVA, N.B.; TYURICHEVA, T.A.

Continuous method of preparation of isovaleric acid from isoamyl  
alcohol by a catalytic reaction. Zhur.prikl.khim. 35 no.3:700-  
701 Mr 62. (MIRA 15:4)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni  
M.V.Lomonosova.

(Isovaleric acid) (Isopentyl alcohol)

I. 21861-66 EWT(1)/T/EWP(j) JK/RM  
ACC NR: AP6012650

SOURCE CODE: UR/0079/65/035/002/0352/0354

AUTHOR: Starkov, A. V.; Shenkman, I. A.; Bogomolova, M. P.; Volkov, Yu. P.

ORG: Central Scientific Research Disinfectant Institute (Tsentral'nyy nauchno-issledovatel'skiy dezinfektsionnyy institut); Ministry of Public Health SSSR (Ministerstvo zdravookhraneniya SSSR)

TITLE: Synthesis of esters of O, O-dialkylphosphoric and O, O-dialkylthiophosphoric acids and pentachlorophenol

SOURCE: Zhurnal obshchey khimii, v. 35, no. 2, 1965, 352-354

TOPIC TAGS: organic synthetic process, ester, insecticide, phenol, condensation reaction, acetone, bactericide, phosphate

ABSTRACT: At present, numerous insecticides of the class of esters of O, O-dialkylphosphoric and O-dialkylthiophosphoric acids are known. Different substituted phenols have been used as the alcoholic component of such esters. Continuing studies in this area, the synthesis of esters of O, O-dialkylphosphoric and O, O-dialkylthiophosphoric acids and pentachlorophenol was attempted. The authors attempted to obtain compounds with insecticidal/bactericidal properties. O, O-Dimethyl- and O, O-diethylpentachlorophosphates were obtained by condensation of corresponding O, O-dialkylchlorophosphates with pentachlorophenol in boiling acetone in the presence of  $\text{Na}_2\text{CO}_3$  with a 60-65% yield. Biological tests showed that the synthesized compounds had average insecticidal and weak bacteriostatic pro-

Card 1/2

UDC: 546.185: 547.564

L 21861-66

ACC NR: AP6012650

perties; for example, O, O-diethylpentachlorophenol phosphate upon contact action on glass surface produced 80% mortality of flies in a dose of 0.5 grams/meter<sup>2</sup> and prevented growth of aureous staphylococcal and intestinal bacillus colonies at an 0.5% concentration for up to 60 minutes. [JPRS]

SUB CODE: 07, 06 / SUBM DATE: 17Dec63 / ORIG REF: 003 / OTH REF: 001

Card 2/2

ACC NR: AP6025387

SOURCE CODE: UR/0243/66/000/007/0016/0019

AUTHOR: Borisova, N. N.; Limanov, V. Ye.; Starkov, A. V.; Skvortsova, Ye. K.; Putyatina, T. I.

ORG: Central Disinfectant Research Institute, Moscow (Tsentral'nyy nauchno-issledovatel'skiy dezinfektsionnyy institut)

TITLE: Synthesis and antibacterial properties of some quaternary ammonium compounds. Report 1.

SOURCE: Meditsinskaya promyshlennost' SSSR, no. 7, 1966, 16-19

TOPIC TAGS: organic chemistry, organic synthesis, biochemistry, antibiotic, quaternary ammonium compound, antibiotic effect, ~~AMMONIA COMPOUND~~

ABSTRACT: The antibacterial properties of the quaternary ammonium compounds listed in the table were tested on *E. coli* and *Staph. aureus*. In the compounds studied, replacement of a cetyl radical by the more available mixed cetyl-octadecyl radical does not decrease the antibacterial properties of the compounds (see the table). The substitution of a saturated long chain radical by an unsaturated one increased the antibacterial properties of the compound. Antibacterial activity of the preparations increased as the basicity of the incorporated tertiary amines increased. The nature

Card 1/3

UDC: 615.711.41-012+615.711.41-017.78

ACC NR: AP6025387

of the anion affects the antimicrobial properties of the preparations. Cetyl (-octadecyl)-pyridine bisulfate (no. 5) had not appreciably affected bacterial growth after 45 min, when a 0.5% concentration was used. However, when bromide was substituted for bisulfate, growth inhibition was noted after 5 minutes (no. 6), and when chloride was substituted, a 0.025% solution inhibited bacterial growth within five minutes (nos. 7 and 8). The role of unsaturated atoms in the long chain radical of the quaternary nitrogen compound has been studied little. In this study, compounds no. 8 and 16, which contain a long chain largely unsaturated radical (iodine no. 40), are more physiologically active than compounds no. 7 and 15 with a saturated radical. Systematic studies of the relationship of basicity of anions to antibiotic properties revealed that antibacterial activity increases with increasing basicity. For example, a 0.05% solution of compound no. 6 inhibits microbial growth; a 0.1% solution of no. 9 and a 0.025% solution of no. 10 and no. 11 produce the same result (see the table). However, a 1:1 mixture of no. 13 and no. 14 produce the same results as no. 14 alone when tested on *Staph. aureus*. On the other hand, the introduction of an electronegative n-chlorobenzene group for the methyl group of compound no. 12 results in lowered antimicrobial effect. Similar results hold for cyclic

Card 2/3

ACC NR: AP6025387

amines when a more basic group is substituted. Compare compounds  
no. 17 and 18. [WA-50; CBE No. 11]

SUB CODE: 06/ SUBM DATE: 22Sep65/ ORIG REF: 002/ OTH REF: 002

Card 3/3

ACC NR: AP6024436

SOURCE CODE: UR/0016/66/000/007/0024/0029

AUTHOR: Vashkov, V. I.; Dremova, V. P.; Starkov, A. V.; Volkova, A. P.; Sindorova, M. V.; Katunina, V. I.; Larionova, V. D.; Yerina, K. M.

ORG: Central Disinfection Institute, Moscow (Tsentral'nyy dezinfektsionnyy institut)

TITLE: Insecticidal properties of the various forms of DDVP and perspectives of their application for disinfection

SOURCE: Zhurnal mikrobiologii, epidemiologii, i immunobiologii, no. 7, 1966, 24-29

TOPIC TAGS: insecticide, aerosol, DDVP, insect ~~pest~~

ABSTRACT: Preparations of DDVP (0,0-dimethyl 0-2,2-dichlorovinyl phosphate) can be used for the immediate extermination of flies and domestic insects (bugs, cockroaches, fleas), in the form of 0.5—0.3% aqueous solutions. A minimal amount, assuring 100% destruction of flies, fleas, and bugs on finished surfaces (glass, wood) is 0.05—0.5 g. for cockroaches 1—2 g. per 1 m<sup>2</sup> (see Tables 1 and 2). Residual action at 18—20° lasts no longer than 5—7 days. To exterminate fly larvae in their substrate, a 0.2%—0.5% aqueous solution can be used at a standard flow rate of the pressure fluid (1—2 liters of solution for materials up to 30 cm thick. Bait for flies and cockroaches can be prepared from aqueous

UDC: 616.981.452-092.9-097.3

Card 1/2



ACC NR: AP6024436

solutions of DDVP. However, the short period (2 days) of residual action of such bait limits prospects for use in practice. DDVP dusts can be used to exterminate a number of domestic parasites. However, in view of the brief period of residual action, further study of the prospects for use in extermination practice is necessary. DDVP is toxic to animals when taken internally. (LD<sub>50</sub> of various samples of preparation is 100—200 mg/kg for mice.) Inhalation of a 0.5% aqueous solution during single or repeated spraying, does not induce any toxic effect in various animals. In preparing aqueous solutions and other forms of DDVP, precautionary measures must be observed, in view of the possibility of entry of the concentrated preparation into the mouth and skin. DDVP in aerosol or vapor form is especially promising.

[WA-50; CBE No. 11]

SUB CODE: 06/ SUBM DATE: 22Feb65/ ORIG REF: 002/ OTH REF: 002/

Card 2/2

ACC NR: AP6034111 (A,N) SOURCE CODE: UR/0358/66/035/005/0532/0537

AUTHOR: Kamennov, N. A.; Alekseyev, A. N.; Starkov, A. V.; Volkova, A. P.; Larionova, V. D.

ORG: Central Disinfection<sup>Scientific</sup> Research Institute, Ministry of Health, Moscow (Tsentral'nyy nauchno-issledovatel'skiy dezinfektsionnyy institut Ministerstva zdavookhraneniya)

TITLE: Properties of ovicidal drugs

SOURCE: Meditsinskaya parazitologiya i parazitarnyye bolezni, v. 35, no. 5, 1966, 532-537

TOPIC TAGS: ovicidal drug, drug effect, para isobutyl phenyl ester, toxicity, phenyl compound, disinfectant, pesticide

ABSTRACT: Ortho- and paracresylacrylates and phenylacetate were the most effective ovicidal drugs of the 13 fatty acid phenyl esters studied. Orthocresylacrylate was most effective against loose eggs laid in hair when applied in a 2% solution in a 2% aqueous sulfanole solution. Their toxicity is not more than DDT and they are effective only against eggs and not against imagoes. Orig. art. has: 6 tables and 1 figure. [W.A. 50]

SUB CODE: 06/ SUBM DATE: 16Nov64

UDC: 615.777/.779+616.5-002.957.5 (Pediouli-  
dae)-085.77

Cord 1/1

ACC NR: AP6025989 SOURCE CODE: UR/0079/66/036/007/1244/1246

AUTHOR: Divinskaya, L. P.; Limanov, V. Ye.; Skvortsova, Ye. K.;  
Putyatina, G. M.; Starkov, A. V.; Grinshteyn, N. I.; Nifant'yev, E. Ye.

ORG: Central Scientific Research Disinfectant Institute (Tsentral'nyy  
nauchno-issledovatel'skiy dezinfektsionnyy institut)

TITLE: Search for bactericidal preparations among organophosphorus  
compounds

SOURCE: Zhurnal obshchey khimii, v. 36, no. 7, 1966, 1244-1246

TOPIC TAGS: bactericide, <sup>organic</sup> ~~organophosphorus~~ compound, organophosphonum  
chloride, alkylaminophosphonate chloride

ABSTRACT:

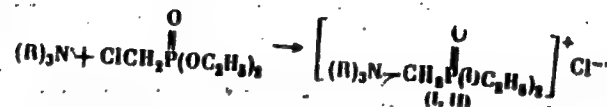
In a search for new bactericides, eight new organophosphorus compounds were  
synthesized and their bactericidal properties studied. The reaction of

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UDC: 547.271

ACC NR: AP6025989

diethyl chloromethylphosphonate with tertiary amines at 120—150° yielded diethyl dimethylaminomethylphosphonate ethochloride (I), mp 179°C, and diethyl dimethylaminomethylphosphonate ethochloride (II), mp 178°C:



At 130°, decyl chloride reacts with phosphorous hexaethyltriamide to form phosphonium salt III, mp 217°C (see table). Compounds IV and V were obtained under similar conditions. At 160° in nitrogen atmosphere, tri-(hydroxymethyl)phosphine reacts with cetylphosphonium bromide or octadecyl phosphonium bromide to form the corresponding bromides (VI). The reaction of tri(hydroxymethyl)phosphine with decyl chloride at 180°C gave VII and with octadecyl chloride under similar conditions yielded VIII. Composition and bactericidal activity of the new compounds are shown in the table.

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ACC NR: AP6025989

Table 1. Antibacterial activities of tertiary salts

No.	Compound	Toward e. coli	Toward staph. aureus
I	$[(C_2H_5)_3N-CH_2PO(OC_2H_5)_2]Cl$	0.5% 20 min.	0.5% 15 min.
II	$[(C_2H_5)_3N-CH_2PO(OC_2H_5)_2]Cl$	0.1% 30 min.	0.2% 20 min.
III	$[(C_2H_5)_3N-CH_2PO(OC_2H_5)_2]Cl$	1% not active	1% not active
IV	$[(C_2H_5)_3N-CH_2PO(OC_2H_5)_2]Cl$	1% not active	1% not active
V	$[(C_2H_5)_3N-CH_2PO(OC_2H_5)_2]Cl$	1% not active	1% not active
VI	$[(C_2H_5)_3N-CH_2PO(OC_2H_5)_2]Cl$	1% not active	1% not active
VII	$[(HOCH_2)_3P-CH_2PO(OC_2H_5)_2]Cl$	1% not active	1% not active
VIII	$[(HOCH_2)_3P-CH_2PO(OC_2H_5)_2]Cl$	1% 20 min.	1% 20 min.
IX	$[(HOCH_2)_3P-CH_2PO(OC_2H_5)_2]Cl$	1% 45 min.	1% 45 min.
		1% 30 min.	1% not active

\* R is a mixture of  $C_{10}H_{23}$ ,  $C_{17}H_{35}$ ,  $C_{18}H_{37}$ .

Orig. art. has: 1 table.

[W.A. 50; CBE No. 10]

SUB CODE: 07,06/SUBM DATE: 29May65/ ORIG REF: 005/ OTH REF: 001

Card 3/3

ACC NR: AP6034111 (A, N) SOURCE CODE: UR/0358/66/035/005/0532/0537

AUTHOR: Kamennov, N. A.; Alekseyev, A. N.; Starkov, A. V.; Volkova, A. P.; Larionova, V. D.

ORG: Central Disinfection<sup>Scientific</sup> Research Institute, Ministry of Health, Moscow (Tsentral'nyy nauchno-issledovatel'skiy dezinfektsionnyy institut Ministerstva zdavookhraneniya)

TITLE: Properties of ovicidal drugs

SOURCE: Meditzinskaya parazitologiya i parazitarnyye bolezni, v. 35, no. 5, 1966, 532-537

TOPIC TAGS: ovicidal drug, drug effect, para isobutyl phenyl ester, toxicity, phenyl compounds, disinfectant, pesticide  
 ABSTRACT: Ortho- and paracresylacrylates and phenylacetate were the most effective ovicidal drugs of the 13 fatty acid phenyl esters studied. Orthocresylacrylate was most effective against loose eggs laid in hair when applied in a 2% solution in a 2% aqueous sulfanole solution. Their toxicity is not more than DDT and they are effective only against eggs and not against imagoes. Orig. art. has: 6 tables and 1 figure. [W.A. 50]

SUB CODE: 06/ SUBM DATE: 16Nov64  
 UDC: 615.777/.779+616.5-002.957.5 (Pediouli-  
 dae)-085.77  
 Card 1/1

STARKOV, D.<sup>A</sup> inzhener.

Efficient utilization of the volumetric capacity of cans.  
Mias. ind. SSSR 24 no.5:17-21 '53. (MIRA 6:12)  
(Containers) (Canning and preserving)

STARKOV, D.<sup>A.</sup> inzhener.

Efficient utilization of the capacity of cans. Mas.ind.SSSR 25  
no.2:27-30 '54. (MLRA 7:5)

(Meat, Canned)



STANLEY, D. A.

STANLEY, D. A. -- "RATIONAL USE OF TIN CONTAINERS IN THE PREPARATION OF NATURAL MEAT PRESERVES."  
SUB 20 FEB 52, MOSCOW CHEMICO TECHNOLOGICAL INST OF MEAT INDUSTRY (DISSERTATION FOR THE  
DEGREE OF CANDIDATE IN TECHNICAL SCIENCES)

SO: V. CHERNAYA MOSKVA, JANUARY-DECEMBER 1952

BUYAKOVICH, Z.G.S.; STARKOV, D.P.

Light-diffusing materials, Plast.massy no.5:74 '60. (MIRA 13:7)  
(Plastics) (Electric light fixtures)

Author: V.I., Center tekhn. nauk; STARKOV, F.N., inzh.

Method of changing the electromagnetic constant of time  
for passive circuits. Sudostroenie 30 no.5:37-38 My '64.  
(MIRA 17:16)

STARKOV, F.N., inzh.

Calculation of an optimum reactor with given inductance.  
Elektrotehnika 35 no.6:47 Je '64. (MIRA 17:8)

L 2615-66 EWT(d)/EWP(c)/EWP(v)/T/EWP(k)/EWP(h)/EWP(l)

ACCESSION NR: AP5019723

UR/0144/65/000/007/0765/0774

621.3.078+62-56

AUTHOR: Starkov, F. N. (Assistant)

39  
37  
B

TITLE: Static synthesis of automated systems

SOURCE: IVUZ. Elektromekhanika, no. 7, 1965, 765-774

TOPIC TAGS: <sup>114</sup>industrial automation <sup>14</sup>

ABSTRACT: A method of system synthesizing is suggested which permits determining unknown parameters from a specified law of control under static conditions. The method is claimed to be simple and applicable to automated systems of any nature. A system comprising a plant, a principal feedback, a deviation feedback, and a disturbance feedback is described mathematically. Formulas for synthesizing such a system are developed. Their use is illustrated by an example of designing the excitation for a d-c generator. All system units,

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L 2615-66

ACCESSION NR: AP5019723

2

except for auxiliary feedbacks, can be nonlinear. If the nonlinearity of the auxiliary feedbacks is not pronounced, the degree of such feedbacks has only a slight influence on the desirable control process; hence, these feedbacks can be selected on the basis of cost, size, weight, design considerations, etc. The full synthesis of a system involves  $2(a - 1) + 1$  equations, where "a" is the total number of feedbacks; the number of unknowns in the system is  $a + 1$ . Orig. art. has: 7 figures and 20 formulas.

ASSOCIATION: Leningradskoye vyssheye inzhenernoye morskoye uchilishche  
(Leningrad Higher Marine-Engineering School)

SUBMITTED: 26Feb63

ENCL: 00

SUB CODE: IE

NO REF SOV: 000

OTHER: 000

Card 2/2

STARKOV, G. L.

Hd., Trachoma Dept., Tomsk Oblast Public Health Dept., -1949-. "Organizing Trachoma Prophylaxis Measures at Rural Health Points," Vest. Oftalmol., 28, No. 6, 1949.

STARKOV, G.I.

~~Control of trachoma in rural areas.~~ Sovet.med. No.3:33-34 Mar 51.  
(CML 20:6)

1. Head of the Trachoma Room of Tomsk Oblast Health Department.



STARKOV, Gennadiy Leonidovich; GLASKO, N.M., redaktor; SAOHMVA, A.I.,  
tekhnicheskiiy redaktor

[How to preserve and improve your sight; talks by an oculist]  
Kak sokhranit' i uluchshit' zrenie; besedy glaznogo vracha.  
Moskva, Gos. izd-vo med.lit-ry, 1955. 44 p. [Microfilm] (MLRA 10:6)  
(SIGHT)

STARKOV, Gennadiy Leonidovich; VEDENSKIY, S.S., red.; LYUDKOVSKAYA, N.I.,  
tekhn.red.

[How to preserve and improve vision; talks with an ophthalmologist]  
Kak sokhranit' i uluchshit' zrenie; besedy glaznogo vracha. Iss.2.  
Moskva, Gos.izd-vo med.lit-ry Medgiz, 1958. 51 p. (MIRA 12:9)  
(EYE--CARE AND HYGIENE)

STARKOV, G.I., dotsent

Biomicroscopy of the posterior segments of the vitreous body.  
Vest.oft. no.6:20-25 '60. (MIRA 14:11)

1. Kafedra glaznykh bolezney (zav. - prof. O.I. Shershevskaya)  
Stalinskogo gosudarstvennogo instituta dlya usovershenstvovaniya  
vrachey.

(VITEROUS HUMOR)

STARKOV, G. L., dotsent

Detachments of the vitreous body and their clinical significance.  
Oft. zhur. 17 no.4:206-210 '62. (MIRA 15:7)

1. Iz glaznoy kliniki (zav. - prof. O. I. Shershevskaya)  
Donetskogo instituta usovershenstvovaniya vrachey.

(VITREOUS HUMOR—DISEASES)

STARKOV, Gennadiy Leonidovich; YUKHNOVSKAYA, S.I., red.; LYUDKOVSKAYA,  
N.I., tekhn. red.

[How to preserve and improve the vision; talks by an eye  
doktor] Kak sokhranit' i uluchshit' zrenie; besedy glaz-  
nogo vracha. Izd.3., perer. Moskva, Meditsina, 1964. 54 p.  
(MIRA 17:3)

ACC NR: AP7006472

SOURCE CODE: UR/0415/66/000/004/0100/0102

AUTHOR: Andriyevich, V. V.; Mogilevskaya, S. Ye.; Nakhrov, S. T.; Starkov, G. P.

ORG: Eastern Scientific Research Mining Institute (VostNIGRI), Novokuznetsk (Vostochnyy nauchno-issledovatel'skiy gornorudnyy institut [VostNIGRI])

TITLE: On the relationship between the velocity of a longitudinal ultrasonic wave and the strength of rock and ore in the Sheregesh deposit (Gornaya Shoriya)

SOURCE: Fiziko-tehnicheskiye problemy razrabotki poleznykh iskopayemykh, no. 4, 1966, 100-102

TOPIC TAGS: ultrasonic wave propagation, compressive strength, mining engineering

ABSTRACT: The article is a report on studies being conducted in the Geological Laboratory of the Eastern Scientific Research Mining Institute to establish the relationship between the velocity of longitudinal ultrasonic waves and the compressive strength of rock and ore. Limestone and porphyrite specimens from the Sheregesh deposit with a fairly constant mineralogical composition and consistent structural characteristics were studied together with skarns and ores. An IPA-59 seismoscope was used for determining the velocity of an ultrasonic wave in cylindrical specimens 100-160 mm long and 32-56 mm in diameter. Rochelle salt piezoelectric pickups with a natural oscillation frequency of 250 kc were used as emitter and receivers of ultra-

UDC: 552.1:53(571.17)

Card 1/2

ACC NR: AP7006472

sonic pulses. The specimens were then cut into cylinders with a height equal to the diameter and tested for uniaxial compression. The results show an increase in compressive strength with the velocity of the ultrasonic wave. The empirical formula relating ultrasonic velocity to strength for porphyrite is  $v=1.16v_{comp}+3760$ . The corresponding formula for scarns with garnet predominant is  $v=3.13v_{comp}+460$ . Orig. art. has: 2 figures, 1 table.

SUB CODE: 11, 20, <sup>08/</sup>~~21~~ SUBM DATE: 20Sep65/ ORIG REF: 002

Card 2/2

MUGILEVSKAYA, S.Ye., kand. geologo-mineralogicheskikh nauk; STAKOV, G.P., inzh.

New developments in methods of determining the silicosis hazard  
of rocks. Bezop.truda v prom. 9 no.4:39-40 Ap '65.

(MIRA 18:5)



DAVYDOV, M.S.; STARKOV, G.V., redaktor; SHENFEL'D, S.D., redaktor;  
KRASNAYA, K.I., ~~tekhnicheskii~~ tekhnicheskii redaktor.

[Lubricants and their use in the river fleet] Smazochnye ma-  
terialy i ikh ispol'zovanie na rechnom flote. Moskva, Gos. izd-vo  
vodnogo transp., 1953. 165 p. [Microfilm] (MLRA 7:8)  
(Lubrication and lubricants)

STARKOV, G. V.

STARKOV, G.V.

BEREZHNAYA, V.D.; KAPUSTIN, B.N.; KOZOREZOVA, A.A.; MATSKIN, L.A.; STARKOV,  
G.V.; TITKOV, V.I.; SMELYANSKIY, V.A., redaktor; SOKOLOVA, N.N.,  
tekhnicheskij redaktor

[Manual on petroleum products in agriculture] Spravochnik po nefte-  
produktam v sel'skom khoziaistve. Moskva, Gos. izd-vo sel'khoz.  
lit-ry, 1956. 343 p. (MIRA 10:4)  
(Petroleum products)

5 FDR NOV, 1960

PHASE I BOOK EXPLOITATION SOV/5744

Akademiya nauk SSSR. Mezhdunarodnyy komitet po provedeniyu  
Mezhdunarodnogo geofizicheskogo goda. IV, razdel programmy MGG:  
Polyarnyye siyaniya i svezheniye nochnogo neba.

Issledovaniya polyarnykh siyaniy; sbornik statey (Investigations  
of Auroras: Collected Articles. No. 4) Moscow, Izd-vo AN SSSR,  
1960. 77 p. 2,000 copies printed.

Resp. Ed.: B. A. Bagaryatskiy, Candidate of Physics and Mathematics;  
Ed.: Ya. I. Fel'dshteyn; Tech. Ed.: Ye. V. Makuni.

PURPOSE: This IGY publication is intended for geophysicists,  
astrophysicists, and other scientists concerned with auroras  
and related phenomena.

COVERAGE: The collection contains certain results of visual auroral  
observations as well as of the photographing and spectrographing  
of auroras made at Soviet stations during the IGY. No personali-  
ties are mentioned. English abstracts and references follow  
each article.

Card 1/3

Investigations of Auroras: Collected (Cont.)	SOV/5744	+
Fel'dshteyn, Ya. I. Magnetic Ionospheric Disturbances and Auroras at Dikson Island	29	
Khorosheva, O. V. Researches on Distortion Curves of C-180 Cameras	40	
Nadubovich, Yu. A. Observations of the Time Derivative of the Vertical Component of the Geomagnetic Field During the Period of Auroras	47	
Khorosheva, O. V. Brightness of the Night Sky According to Data of Northern Stations	52	
Starkov, G. V., and Ya. I. Fel'dshteyn. Azimuths of Auroral Arcs According to Observations at Dikson Island	56	
Fel'dshteyn, Ya. I. The Geographic Distribution of Auroras and Azimuths of Auroral Arcs	61	
AVAILABLE: Library of Congress		

Card 3/3

JA/dwm/jw  
11-6-61

NADUBOVICH, Yu.A.; STARKOV, G.V.

Fibrous structure of weak homogeneous arcs of auroras. Geomag.i  
aer. 2 no.1:71-73 Ja-F '62. (MIRA 15:11)

1. Yakutskiy filial Sibirskogo otdeleniya AN SSSR.  
(Auroras)

29719 S/169/61/000/008/035/053  
A006/A101

3,1810 (1041)

AUTHORS: Starkov, G. V., Fel'dshteyn, Ya. I.

TITLE: Azimuths of arcs of aurorae polaris from observations on the Dixon Island

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 8, 1961, 19, abstract 8G151  
(V sb. "Issled. polyarn. siyaniy, no. 4", Moscow, AN SSSR, 1960, 56-60, English summary)

TEXT: The authors studied the dependence between the orientation of aurora polaris arcs and the local terrestrial magnetic field. Photographs of aurorae were taken with the aid of a wide-angle lens camera. To determine the azimuth of arcs their lower edges were horizontally projected assuming that the altitude of aurora was constant and equal to 110 km. Azimuths were read out from the direction of geographic north. Data obtained show that from 18 to 6 h local time a systematic decrease of arc azimuths in respect to the geographical meridian was observed. The results of observations are in a satisfactory agreement with theoretical conclusions drawn by Alfven (Alfven, H., "Kosmicheskaya elektro-dinamika" IL., Moscow, 1952). The conjecture on the connection between isolines

Card 1/2

Azimuths of arcs of aurorae polaris ...

29719 S/169/61/000/008/035/053  
A006/A101

("Izokhazmy") and the local magnetic field is not confirmed by an analysis of visual observations. In cases when the arc did not change its shape, within some minutes, the velocity of its displacement in direction of the normal was determined; this direction coincided basically with the meridional one. The southward movement of the aurorae was observed during the evenings, and the northward one during the evening and night. The mean velocity of displacement is  $6.4 \pm 4.4$  km/min. Investigations have shown that there is no single-valued correlation between the location of a uniform arc and the Q-value (the index of magnetic activity). The horizontal projection of the disturbed vector F was calculated at the moment when the arc was present. It was found that during nightfall uniform arcs had the tendency to shift toward the south at an increased vector of F-magnetic disturbance. Otherwise no marked correlation was discovered. X

L. Yerasova

[Abstracter's note: Complete translation]

Card 2/2



S/169/62/000/006/080/093  
D228/D304 .

31810

AUTHOR: Starkov, G. V.

TITLE: Azimuths and rates of movement of homogeneous auroral arcs

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 6, 1962, 23, abstract 6G137 (V sb. Polyarn. siyaniya i svecheniye nochn. neba, no. 7, M., AN SSSR, 1961, 22-26)

TEXT: During the IGY large amounts of auroral photographs were obtained by means of full sky cameras, which fix the position of radiances in the firmament. This allows the positions of the arcs to be investigated in detail. The materials used by the author were mainly obtained in the western sector of Soviet Arctica in the period 1957-1958. The cameras were oriented and calibrated by the stars. The horizontal projection of the arcs was plotted on 1 : 10,000,000-scale maps, when it was supposed that the height of the lower edge of the auroras is constant and equal to 110 km. The curvature radii and the azimuths were determined only for homogeneous

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S/169/62/000/006/080/093  
D228/D304

Azimuths and rates ...

arcs. 513 cases were considered in all. A. P. Nikol'skiy and O. A. Budro (Izv. Geofiz., no. 6, 1958, 4683), when examining the geographic distribution of magnetic disturbances, showed that points, corresponding to the maximum of the magnetic disturbance's phase, are disposed spirally. Only the results of Budro, whose "morning" spiral corresponds approximately to the isochrones of Nikol'skiy, can be used to obtain the diurnal variation of the azimuths, which must take place if it is assumed that the arcs are situated along spirals. Evolutes of all three of Budro's spirals were constructed to determine the azimuth's diurnal variation. By means of them the values of the azimuths and the radii of curvature were taken from the spirals. Curves are cited for the dependence of auroral arcs' azimuths on the local time, and they are compared with the observational data. The distribution obtained from Budro's spirals evidently does not correspond to Alfvén's (Al'fven's) change in the arc azimuths. The results of the measurements correspond comparatively well to the calculated curve. The probability of an arc's appearance in a particular section of the spiral must depend on the geomagnetic latitude. For high-latitude stations the probability

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S/169/62/000/006/080/093  
D228/D304

azimuths and rates ...

of the appearance of arcs, deviating greatly from the  $90^\circ$  azimuth, is higher than for the stations in lower latitudes. It was impossible to derive an obvious relationship between the azimuth's deviation from the calculated curves and the average for the degree of magnetic disturbance. The negligible radius of arc curvature is a no less important factor, speaking in favor of the spirally-related disposition of arcs. The rate of arc movement was also determined. According to the nature of their movement arcs are divided into two types. The first (most of them) possess a comparatively uniform, parallel movement, generally in a direction towards the auroral zone at a speed of  $12 \pm 6$  km/min. Arcs of this type can arise when there is no magnetic disturbance. The appearance of such arcs appears to be connected with regular currents in the ionosphere. Arcs of the second type arise only in the presence of magnetic disturbance. It may be supposed that they are associated with linear current, including the given storm, since the perturbation vector's direction coincides with a precision of down to  $2 - 3^\circ$  with the magnetic field vector of the linear current coinciding spatially with the arc. There was only one arc in the sky in some cases. Estimat-

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Azimuths and rates ...

39098  
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D228/D304

ing the current in the arc according to the law of Bio-Savar gives a value of 1000 - 8000 amp. The current's direction is westerly. Arcs of this type are distinguished by the high irregularity of their movement. Sometimes they are stationary, when large azimuthal variations are usually observed. /-Abstracter's note: Complete translation.\_/ X.

Card 4/4

L 32687-65 EEC-4/ENG(v)/ENA(h)/EWT(1)/EEC(t)/FCG Pe-5/P1-4/Po-4/Pq-4/  
Pt-10/Pac-2/Peb GW/WS-4

ACCESSION NR: AP5005200

S/0203/65/005/001/0177/0179

AUTHOR: Starkov, G. V.

TITLE: Electrical fields at the heights of the E layer

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 1, 1965, 177-179

TOPIC TAGS: upper atmosphere, ionosphere, ionospheric E layer, magnetic disturbance, aurora, atmospheric electricity

ABSTRACT: During the 1962-1963 observation season, a parallaxic survey was made at Murmansk and Loparskaya to determine the heights of auroras. For comparison of these results with magnetic disturbances, those cases were selected when only one arc was present in the sky for a relatively long time and this arc was approximately parallel to the direction of the electrical current, determined from the magnetograms of the variation station at Loparskaya. There were two such cases: 1700 and 2030 UT on 30 January 1963. Current intensity was also computed for these times using the Biot-Savart law. It was assumed that the magnetic disturbance was caused by a linear current whose height coincides with the height of the arc. The dependence of current intensity on wind velocity is shown in Fig. 1 of the Enclosure. The straight line 1 is for 1700 hours and line 2 is for 2030 hours. When

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64  
B

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ACCESSION NR: AP5005200

the arc drops below 90 km the linear dependence is disrupted immediately. Wind velocity becomes less than what it should be for a given current intensity. This probably is related to a sharp increase in the recombination coefficient at these heights due to an increase in atmospheric density. The current maximum is observed at the heights of the lower boundary of the arc, about 105-110 km, that is, the height of the current is 120-130 km. Since the straight lines do not pass through the origin it follows that, for the existence of such a dependence between  $I$  and  $V$ , there must be an electrical field present which is unrelated to the wind because the presence of a current of such intensity can be explained only by a dynamo field. The author determines the field for the two mentioned cases. It is shown that for computation of the electrical fields it is necessary to know the area of the cross section of the current in order to convert from current intensity to current density. The area of the cross section at 1700 hours was smaller than the cross section at 2030 hours by a factor of 4. This is because at 1700 hours the wind vector was directed almost along the current. The author presents the computations of the components of the nonwind electrical field. "In conclusion, the author wishes to thank M. I. Pudovkin for assistance during the work." Orig. art. has: 5 formulas and 1 figure.

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L 32687-65

ACCESSION NR: AP5005200

ASSOCIATION: Polyarnyy geofizicheskiy institut AN SSSR. Kol'skiy filial (Polar geophysics institute, Kola branch, AN SSSR)

SUBMITTED: 02Jun64

ENCL: 01

SUB CODE: ES

NO REF SOV: 005

OTHER: 009

Card 3/4

L 32687-65

ACCESSION NR: AP5005200

ENCLOSURE: 01

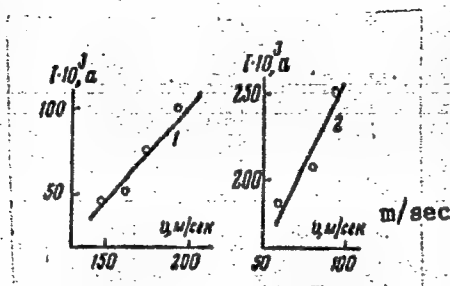


Figure 1. Dependence of current intensity on wind velocity.

Card 4/4



L 41483-65 EWT(1)/ENG(v)/FCC/EEC(t) Po-4/Pe-5/Pq-4/Pt-10/Pi-4 GW  
ACCESSION NR: AP5005203 S/0203/65/005/001/0188/0190

AUTHOR: Mal'kov, L. N.; Starkov, G. V.

TITLE: Several features in the vertical distribution of auroras

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 1, 1965, 188-190

TOPIC TAGS: auroral band, auroral arc, auroral photograph, zenithal distance

ABSTRACT: Heights of the lower rim of auroral bands and arcs have been measured from auroral photographs obtained at the Murmansk and Loparskaya Stations, both of which lie on approximately the same meridian. Zenithal distances of auroras at both stations and the central angle based on the arc between the two stations are used for determining heights. Graphic representations of measurement results are given in the original article for the 43 arcs and bands which have been measured on selected photographs. The curves represent the percentage of heights at selected levels in relation to the total number of heights measured. A high maximum takes place at the height of 100 km.

Card 1/2

L 41483-65

ACCESSION NR: AP5005203

There are few bands at the height of 80 km. Heights of bands and arcs observed to the north of Murmansk were lower than those observed to the south. Orig. art. has: 4 figures and 1 formula. [EG]

ASSOCIATION: Polyarnyy geofizicheskiy institut AN SSSR, Kol'skiy filial. (Polar Geophysical Institute, ANSSSR, Kola Branch)

SUBMITTED: 03Apr64

ENCL: 00

SUB CODE: ES, AA

NO REF SOV: 005

OTHER: 010

ATD PRESS: 3196

*me*  
Card 2/2

STARKOV, G.V.

Electric fields at E-layer altitudes. Geomag. i aer. 5 no.1:177-179  
Ja-F '65. (MIRA 18:4)

1. Polyarnyy geofizicheskiy institut AN SSSR, Kol'skiy filial.

ACC NR: AP6032694

SOURCE CODE: UR/0203/66/006/005/0901/0906

AUTHOR: Starkov, G. V.

ORG: Polar Geophysical Institute of the Kola Branch, AN SSSR (Polyarnyy geofizicheskiy institut Kol'skogo filiala AN SSSR)

TITLE: On the longitudinal effect of auroral activity

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 5, 1966, 901-906

TOPIC TAGS: aurora, geomagnetic midnight, ~~magnetic activity~~ geomagnetic noon, earth rotation axis, ~~dipole axis~~, ~~supplementary~~ magnetic field, ~~auroral activity~~  
geomagnetism <sup>earth</sup>

ABSTRACT: Maximum appearance of auroras occurs at local geomagnetic midnight, and the local magnetic activity generally reflects the appearance of auroras. The midnight maximum bifurcates at higher latitudes. The distance between two maxima increases until they merge at geomagnetic noon at latitudes from 70° to 80°. Curves of the diurnal rates of auroras are given for Arctic stations in Europe, Asia, and North America. Curves of European stations have similar bell shapes, with the maxima shifted a little from local midnight. Curves of Asian stations have flat tops with the main maxima before midnight. Curves of American stations are deformed with a smooth ascent and a steep fall off. These curves prove the difference in the appearance of auroras of various meridians which can be explained by the angle between the earth's axis of rotation and the axis of the dipole. The

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UDC: 550.388.8

ACC NR: AP6032694

difference in the directions of the two axes creates a supplementary magnetic field which changes periodically. The supplementary field is expressed by horizontal and vertical components which depend upon the geomagnetic latitude and longitude. Variations of the supplementary field agree with the rate of global auroral activity. All diurnal rates have maxima near local geomagnetic midnight. Orig. art. has: 4 figures and 7 formulas.

SUB CODE: 04~~08~~/SUBM DATE: 19May65/ ORIG REF: 011/ OTH REF: 002

Card 2/2

L 52634-65 EWT(1)/EWG(v)/FCC/EEC(t) Po-4/ Pe-5/Pq-4/Pt-7/Pi-4 GS/GW

ACCESSION NR: AT5012352

UR/0000/65/000/000/0024/0034

AUTHOR: Roldugin, V. K., Starkov, G. V.

TITLE: Orientation of homogeneous auroral arcs and their relationship to currents of magnetic disturbances

SOURCE: AN SSSR. Kol'skiy filial. Polyarnyy geofizicheskiy institut. Issledovaniye polyarnykh siyaniy, geomagnitnykh vozmushcheniy i ionosfery v vysokikh shirotakh (Investigation of aurorae, geomagnetic disturbances, and the ionosphere at high latitudes). Moscow, Izd-vo Nauka, 1965, 24-34

TOPIC TAGS: auroral arc, aurora orientation, magnetic disturbance, geomagnetic field

ABSTRACT: The morphology of linearly extended forms of auroras, mainly homogeneous arcs, was studied on the basis of films taken by an S-180 camera. The daily variation in azimuths and in the position of arcs may be explained by their orientation along a spiral with a maximum probability of appearance of auroras. The "morning" discontinuity of azimuths may be interpreted from this point of view. The majority of arcs are grouped around the "night" spiral. All the dissimilarities between the azimuths and positions of the arcs and spirals are due to the nature of the magnetic disturbance. Projections of the radii of curvature of homogeneous arcs have relative small values. Probability curves of

Card 1/2

L 52634-85

ACCESSION NR: AT6012352

the appearance of arcs with a given radius have two maxima:  $R_{max} = 550$  km and  $R_{max} = 1100$  km. The radius of curvature of the arcs at the maxima is 50-67% of the radii of curvature of the corresponding sections of the spirals. As a rule, the position of the center of gravity of the current and of the arc is not the same. The arc often forms an appreciable angle with the current, particularly in the region of the local geomagnetic midnight. Before and after the latter, the arc and current are essentially parallel. The average distance between the arc and the western current is about 120 km, and between the arc and the eastern current, about 240 km. This corresponds to 60 m/sec. for the northern component and 120/sec. for the southern one. Orig. art. has: 6 figures, 1 table and 5 formulas.

ASSOCIATION: None

SUBMITTED: 27Nov64

ENCL: 00

SUB CODE: ES, EM

NO REF SOV: 009

OTHER: 008

Card 2/2

*Starkov, I.*

27-12-5/27

AUTHOR: Starkov, I., Industrial Training Foreman, Technical School  
# 4, Melitopol'

TITLE: **At Pedagogical Conferences (Na pedagogicheskikh konferentsiyakh)**  
**Zaporozh'ye Oblast' (Zaporozhskaya oblast')**

PERIODICAL: Professional'no-Tekhnicheskoye Obrazovaniye, 1957, # 12,  
p 5 (USSR)

ABSTRACT: The article reports on a recent pedagogical conference of workers of the Labor Reserves' educational institutions. The main object of the conference was to examine the fulfilment of the recommendations of the 20th Party Congress in regard to increasing the quality of workmen's training and to investigate to what extent the socialist pledges given by the school staffs on the occasion of the 40th Anniversary of the October Revolution have been kept. The author states that the network of schools in the Oblast' has been expanded, and the number of trained, qualified workmen placed at the disposal of the national economy has been increased. The article enumerates several achievements of the schools and states that the available possibilities have not been utilized by all of them. For

Card 1/2



At Pedagogical Conferences. Zaporozh'ye Oblast'.

27-12-5/27

example, Technical School # 1 (Tekhnicheskoye uchilishche No 1) and Trade School # 14 (Remeslennoye uchilishche No 14) have not modernized their stock of machine tools at all, while at Trade School # 2 and Technical School # 5 the equipment is in bad condition. The author mentions a few other shortcomings and then deals with the students' technical activity which was successful at some schools, while it was impeded at other schools by lack of materials.

AVAILABLE: Library of Congress

Card 2/2

STARKOV, I.

Traveling butterflies. IUn. nat. no.6:1-2 S '56.

(MLRA 9:10)

(Butterflies)

STARKOV, I.

It seems that... IUn.nat.no.9:26-27 D '56.  
(Siberia--Mammoth)

(MLBA 10:2)

STARKOV, I.

In the depths of the ocean. Znan.sila 31 no.4:21-25 Ap '56.  
(Ocean bottom) (MIRA 9:7)

STARKOV, I.

Ghai the Wise, master of the jungle. Znan.sila Vol.31, no.6:34-37  
Je '56. (MLRA 9:8)

(Elephants)

STARKOV, I.

4-9-5/25

AUTHOR: Starkov, I.

TITLE: The Sea Cucumber Commits Harakiri ("Harakiri" morskogo ogurtsa)

PERIODICAL: Znaniye - Sila, 1957, # 9, page 14 (USSR)

ABSTRACT: The article gives a popular description, how the sea cucumber (holothurian) defends itself, if attacked by enemies. There are 2 figures.

AVAILABLE: Library of Congress

Card 1/1

STARKOV, I.A.

Biological and economic characteristics of bees in Buryat-Mongolia.  
Kraeved. sbor. no.2:97-107 '58. (MIRA 13:2)  
(Buryat-Mongolia--Bees)

STARKOV, I.A.

Biology of the Transbaikalian azure-winged magpie (*Cyanopica cyana*  
*cyana* Pall.) [with summary in English]. Zool. zhur. 37 no.8:1262-1263  
Ag '58. (MIRA 11:9)

1. Buryat-Mongol'skiy gosudarstvennyy zooveterinarnyy institut, Ulan-Ude.  
(Temnik Valley--Magpies)



AUTHOR: Starkov, I.A. (Ulan-Ude) 26-58-5-43/57

TITLE: A Tame Erythrina erythrina grebnitzkii Stejn (Ruchnaya  
chochevitsa)

PERIODICAL: Priroda, 1958,<sup>47</sup> Nr 5, p 115 (USSR)

ABSTRACT: Experience of a group of students of the biological faculty  
of the Buryat-Mongol'skiy pedagogicheskii institut imeni  
Dorzhi Banzarova (Buryat-Mongol Pedagogical Institute imeni  
Dorzhi Banzarov) are given, and an incident is related when  
they found a tame eastern finch Erythrina erythrina greb-  
nitzkii Stejn hatching 4 light-blue brown spotted eggs.  
There is 1 photograph.

AVAILABLE: Library of Congress

Card 1/1 1. Birds - USSR

STARKOV, I.A., Cand Biol Sci — (diss) "Apiculture of Buryatiya  
and cert in biological ~~characteristics~~ *peculiarities* of local bees."  
Kuznetsov, 1959. 17 pp (Min of Agr RSFSR, Kuznetsov' Vet Inst in  
N.N. Bauman), 125 copies (1959-60, 1971)

- 26 -

STARKOV, I.A.

Concise outline history of bee culture in Buryat-Mongolia.  
Kraevod.sbor. no.4:90-104 '59. (MIRA 13:7)  
(Buryat-Mongolia--Bee culture)

IZMAYLOV, I.V.; STARKOV, I.A.

Observations on the migration of birds in the Yeravna lake valley.  
Ornitologiya no.3:405-409 '60. (MIRA 14:6)  
(Isinga region--Birds--Migration)

IZMAYLOV, I.V.; STARKOV, I.A.

Zoological research in the southern part of the Vitim Plateau  
in 1960. Kraeved. sbor. no.6:70-93 '61. (MIRA 15:2)  
(Vitim Plateau—Zoology)

STARKOV, I.A., kand.biologicheskikh nauk

Feeder for wrens. Biol. v shkole no.6:77-78 K-D '61.  
(TRA 34:11)

1. Buryatskiy pedagogicheskiy institut.  
(Birds, Protection of)

STARKOV, I. D.

42516. O Polovoy Zrelosti U soboley. Karakulevodstvo I Zyerovodstvo, 1948,  
No. 6, s. 55-58.

STARKOV, I. D.

Silver Fox

Rating and culling male voxes by quality of semen. Kar. i zver., 5, No. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, June 195~~8~~<sup>2</sup>, Uncl.



STARKOV, I.D.

Effect of age and number of previous pregnancies in silver foxes,  
foxes, weasels, and sables on fertility of progeny. Zh. obsh. biol.,  
Moskva 13 no.6:455-463 Nov-Dec 1952. (CML 23:4)

1. STANKOV, I.D.
2. USSR (600)
4. Fur Farming
7. Selecting young arctic fox, minks, and sables for breeding purposes on the basis of the age and prolificacy of mothers, Kar. i zver. 6 no. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

CP

The cleaning of [gas] scrubbers. I. D. Starkov.  
Coke and Chem. (U. S. S. R.) 1939, No. 6, 20-1; KATW.  
Referat. Zhur. 1939, No. 10, 99.—Washing with small  
amts. of poorly settled oil and steaming did not produce  
satisfactory results. Better results were obtained by  
washing the scrubber with a large amt. of a heated oil  
emulsion. Clarification of the oil is recommended before  
passing it to the scrubber. W. R. Henn

ASH-31A METALLURGICAL LITERATURE CLASSIFICATION

AUTHOR: Starkov, I.D. (Gorlovsk Coke Oven Works). 526  
TITLE: On causes of accumulation of deposits in fittings of pipes  
delivering gas for heating coke ovens. (O prichinakh  
zagryazneniya armatury otopitel'nogo gazoproveda  
koksovykh pechey.)  
PERIODICAL: "Koks i Khimiya" (Coke and Chemistry),  
1957, No. 4, pp. 31 - 34, (U.S.S.R.)  
ABSTRACT: On the Gorlovsk ovens there were periods of operation  
during which some deposits blocked the fittings of the gas  
main delivering gas to the ovens. The appearance of these  
deposits was correlated with the washing of saturators when  
the bath acidity reaches 25%. Analyses of the deposits  
(Table 1) indicated that their main component was ammonium  
chloride and some sulphate. Research on the causes of the  
appearance of the above deposits indicated that they were  
related to the use of liquor for washing the saturator. When  
the use of the liquor in the sulphate department was dis-  
continued, the formation of the deposits ceased. A check on  
the practice of washing the saturator at a lower bath acidity  
and preliminary dilution of the mother liquor with water is  
recommended.  
There are 5 tables.

SOV/68-59-7-21/33

AUTHORS: Starkov, I.D., El'yashev, M.I. and Kalita, Z.S.

TITLE: A New Method of Denitration of Acid

PERIODICAL: Koks i Khimiya, 1959, Nr 7, pp 53-54 (USSR)

ABSTRACT: A method of denitrating sulphuric acid before it is used for the production of ammonia sulphate is proposed. It consists of an addition to the acid of 0.1 - 0.3% of heavy benzole containing a considerable proportion of unsaturated compounds. The mixture is intensively stirred for one hour by blowing air. A complete denitration of the acid takes place. The method was tested under industrial conditions with satisfactory results.

ASSOCIATION: Gorlovskiy koksokhimicheskiy zavod (Gorlovskiy Coking Works)

Card 1/1

STARKOV, I.N.; ARTEM'YEVA, V.A.

Accessory pancreas in the stomach wall. Khirurgiia 40 no.3:105  
Mr '64. (MIRA 17:9)

1. Khirurgicheskoye otdeleniye (zav. V.A. Artem'yeva) meditsinskoy  
sanitarnoy chasti (glavnyy vrach - zasluzhennyy vrach UkrSSR  
K.V. Larionova) Severskogo metallurgicheskogo zavoda.

С. ПАРКОВ, Л. В.

AID P - 981

Subject : USSR/Engineering

Card 1/1 Pub. 28 - 4/9

Authors : Stepanov, G. M. and Starkov, I. V.

Title : Standarization of electric power consumption for deep well oil pumping

Periodical : Energ. byul., #10, 18-21, 0 1954

Abstract : Three semi-empirical formulas for determination of kwhr consumption per one ton of oil in deep well oil pumping are analysed on the basis of average observed data from many operating oil fields. The formulae are found not quite satisfactory for practical use in view of the complications involved in the determination of the correction coefficients. One chart and 5 Russian references (1949-54).

Institution : None

Submitted : No date

STARKOV, I. V.

AID P - 1546

Subject : USSR/Engineering

Card 1/1 Pub. 28 - 6/7

Author : Starkov, I. V.

Title : Automatic cut-off of oil pumps (walking beams) in case of disruption of normal operations of oil well

Periodical : Energ. byul., 1, 25-28, Ja 1955

Abstract : The author presents a device for automatic disconnection of the electric drive in case of the disruption of normal operations of the well pump. He analyses several situations which may lead to serious damage of the electric-drive mechanism, illustrates them with 6 diagrams and gives an additional rough sketch for the proposed electrical set-up of his device. After elimination of certain shortcomings, the proposed device should find wide application in the petroleum industry.

Institution: None

Submitted : No date



STAR KOV, I.V.

AID P - 2153

Subject : USSR/Electricity

Card 1/1 Pub. 28 - 4/9

Author : I. V. Starkov

Title : ~~Power relay controlling the operation of deep oil wells~~  
Power relay controlling the operation of deep oil wells

Periodical: Energ. byul., no.5, 17-18, My 1955

Abstract : This author previously (Energ. byul., no.1, 1955) described an electric control device for automatic disconnection of the electric drive in case of disruption of the normal operation of an oil well pump. Now he suggests the adaptation of a 5 amp 220 v induction watt-hour meter, (slightly reconstructed) to be used as the power relay for the purpose. The description of the reconstruction of the electric meter is supplemented with 2 diagrams.

Institution: None

Submitted : No date

STARKOV, I.V.

Electric power economy in changing the operating conditions of  
small output oil wells. Energ. biul. no. 4:4-9 Ap '57. (MLRA 10:5)  
(Oil wells)

KOZHEVNIKOVA, Z.I., inzh.; STARKOV, Kh.A., inzh.

Light scatterer for a portable battery-fed lamp. *Svetotekhnika*  
9 no.7:29-30 JI '63. (MIRA 16:7)

1. Vsesoyuznyy svetotekhnicheskiy institut.  
(Electric lighting)

STARKOV, L.

Construction of reinforced concrete docks for the merchant  
marine. Mor. flot 16 no.12:17-18 D '56. (MLRA 10:2)

1. Direktor Khersonskoy sudostroitel'noy verfl.  
(Docks) (Reinforced concrete construction)

STARKOV, L. I.; CHERPILLO, A. V.

Long-stroke drill. Gor. zhur. no.11:75-76 N '62.  
(MIRA 15:10)

(Boring machinery)

IS FARKOU, L.N.

- Abstracts and Reviews. Dval'skiy Sillal. Institut metallurgii  
Sverdlovsk, 1958, 157 p. Russian  
ally inserted. 1,000 copies printed.
- Material Board: V.A. Voklin (Resp. Ed.), Candidates of Technical Sciences;  
A.S. Nizhnikitskiy, Professor, Doctor; V.Ya. Miller, Professor; F.A. Pechenkin,  
Candidate of Technical Sciences; and S.G. Litvinov, Candidate of Technical  
Sciences; Ed.: R.J. Buzinovskiy.
- PREFACE: This book is intended for ferrous and nonferrous metallurgists.  
CONTENTS: The book presents results of investigations of theoretical pro-  
blems in metallurgy and chemistry and gives information on the efficient  
uses of raw materials in ferrous and nonferrous metallurgy and on the de-  
velopment of new production processes in the metallurgical and chemical  
industries. The articles were written by junior members and experienced  
specialists of the scientific staff of the Institutes of Metallurgy,  
Chemistry, and Electrochemistry, Dval Branch, Academy of Sciences, USSR,  
Gor'kiy, A.V., T.V. Sapozhnikova, and R.M. Lepinskikh. Electrical Resistance  
and Thermal Expansion of Nitrogenated Titanium During the Heating-Heating  
Process
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145
1. Sverdlov, G.I., and Ye.A. Melnikov. On the Connection Between the Kinetics of  
the Vaporization of Solids and the Pressure of Saturated Vapor
2. Sverdlov, G.I., and M.P. Nyer (Deceased). Behavior of Germanium During the  
Boiling of Salts of Germanium
3. Sverdlov, G.I., and M.L. Kochurov. On the Reduction of the Lower Halides of  
Germanium and Cobalt
4. Sverdlov, G.I., and M.L. Kochurov. Oxidation of the Lower Halides of Nickel  
and Cobalt
5. Sverdlov, G.I., and M.L. Kochurov. Polarization of Methylammonium-Chloride-Silver  
Electrode in Aqueous Solution
6. Sverdlov, G.I., and M.L. Kochurov. Investigation of the  
Conditions for Electrodeposition of Copper from Aqueous Solutions in the  
Presence of Iron, Zinc, and Cadmium Cations and the Nitrate Anion
7. Sverdlov, G.I., and M.L. Kochurov. Some Parameters for  
the Electrolytic Production of Lead from Aqueous Chloride Solutions  
and Selection of Suitable Anodes for Electrolysis
8. Sverdlov, G.I. Some Parameters of the Reaction of Molten With Soda  
and Zinc During the Smelting Process
9. Sverdlov, G.I., and S.L. Kuznetsov. Optimum Conditions for Smelting Soda-  
Sulfate Silver Chloride
10. Sverdlov, G.I., and S.L. Kuznetsov. Production of Metallic Sodium by  
Carbon Reduction of the Sulfate or Carbonate (Experimental Tests)
11. Sverdlov, G.I., and S.L. Kuznetsov. Investigation of the  
Problem of Reducing Zinc from Copper (Copper) Melts to the Gaseous Phase  
During Air Blast
12. Sverdlov, G.I., and S.L. Kuznetsov, and S.P. Dyer (Deceased). Comparative Data  
on the Carrying of Liquid Into the Gas-Exhaust Holes in an Experimental Con-  
verter
13. Sverdlov, G.I., and S.L. Kuznetsov, and V.I. Zhuravskiy. On the Behavior of Oxides  
of Silicon During the Metallurgical Treatment of Molten Iron
14. Sverdlov, G.I., and V.P. Chernobrovkin. On the Melting and Overheating of  
Pig Iron in the Converter
15. Sverdlov, G.I., and V.P. Chernobrovkin. Change in Chemical Composition and  
Mass Content of Pig Iron During Cupola Melting
16. Sverdlov, G.I., and V.P. Chernobrovkin, and V.J. Belyuzov. Phosphorus and Ti-  
tanium in Foundry Pig Iron
17. Sverdlov, G.I., and V.P. Chernobrovkin. Investigation of the Copolymers of Poly-2,  
butylene Glycol Terephthalate and Styrene
18. Sverdlov, G.I., and V.P. Chernobrovkin. Production of Isopropyltin by Alkylation  
of Isobutyltin with Chlorine
19. Sverdlov, G.I., and V.P. Chernobrovkin. Physical-chemical Properties  
of Fused Silicates of Cobalt

STARKOV, L.N.

24-58-3-9/38

AUTHORS: Kochnev, M.I., Plotnikova, A.F. and Starkov, L.N. (Sverdlovsk).

TITLE: Temperature Features of the Process of Oxidation of Copper Sulphide (Temperaturnyye osobennosti protsessa okisleniya sul'fida medi)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1958, Nr 3, pp 82-88 (USSR)

ABSTRACT: Modern conceptions on the changes in the electron structure of atoms and their influence on the character of the chemical bond forces, gained from the study of semi-conductors, justify a more thorough analysis of various phenomena involved in metallurgical processes. In earlier work in this field, relating to compounds of heavy non-ferrous metals, the team of the authors of this paper established the existence of a temperature correspondence in the changes of the properties of these compounds and of their components. The aim of the work described in this paper was to study the inter-relation between the temperature changes and the properties of copper and sulphur and the properties of the simple compound  $\text{Cu}_2\text{S}$  formed from these.  $\text{Cu}_2\text{S}$  was chosen for investigation due to the fact that it is one of the basic components of the raw materials for which new processes of roasting and smelting are being developed. Two specimens were investigated.

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## Temperature Features of the Process of Oxidation of Copper Sulphide.

ed which were prepared synthetically by smelting, the respective compositions being the following: 78.9% Cu, 21.1% S and 79.1% Cu, 20.9% S (the theoretical composition being 79.8% Cu, 20.2% S). In both cases the composition was in the range of solid solutions of sulphur in  $\text{Cu}_2\text{S}$ . The differ-

ences in the composition of the two specimens proved to be of little importance. The experiments were carried out mainly with sulphide grains of the sizes 0.50 to 0.63 mm. Oxidation of the sulphide was carried out in a vacuum set-up, a sketch of which is shown in Fig.1, p.83, using the method of circulating air in a closed system, drawing it through a layer of the charge which is heated to a certain temperature; the gases obtained after drawing off the air through the charge were caught by a device in which cooling by means of liquid nitrogen was applied for the purpose of freezing out sulphurous acid anhydride and sulphuric anhydride. According to Averbukh, B.D. (Ref.7) the quantity of forming sulphuric anhydride under these conditions is very low and, therefore, was not determined separately. The investigations were carried out with a constant initial air pressure in the system

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### Temperature Features of the Process of Oxidation of Copper Sulphide.

of 408 mm and a constant temperature of the charge, which were established during each measurement of oxygen consumption after three minutes. The total duration of the experiment was 21 or 30 mins. The graph, Fig.2, gives the change in the speed of oxidation of  $\text{Cu}_2\text{S}$  during continuous heating. The graph, Fig.3, gives the temperature dependence of the coefficient of electrical resistance of the copper. The graph, Fig.4, gives the temperature dependence of the oxidation speed of copper sulphide along a fresh surface. The graph, Fig.5, gives the temperature dependence of the quantity of copper which is present in the form of oxides and sulphate in the residue on the degree of oxidation of  $\text{Cu}_2\text{S}$ .

In Fig.6 the consumption of oxygen and the yield of sulphurous acid anhydride as a function of the temperature are graphed. It was established that the speed of oxidation of  $\text{Cu}_2\text{S}$  does not change continuously with temperature but is

complicated by a number of anomalous deviations within narrow temperature ranges. The temperatures of the narrow deviations in the kinetics of oxidation of copper sulphide are critical temperatures for pure copper and pure sulphur, the manifestation of which is considered as being the result

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Temperature Features of the Process of Oxidation of Copper Sulphide.

of changes in the electron structures of the atoms with increasing temperature. The character of the changes in the speeds of oxidation of the copper sulphide at critical temperatures is elucidated and the limits of anomalous temperature ranges were determined; in most cases the sharp fluctuations in the oxidation speed reach 20 to 30% and take place in the temperature range 5 to 15°C. On the basis of study of the oxidation isotherms, the degree of utilisation of the oxygen and the yield of sulphurous acid anhydride and of the influence of the oxidation duration, the conclusion is arrived at that the determining factor in the process of oxidation of  $\text{Cu}_2\text{S}$  at temperatures up to 450°C is the formation of sulphate. There are 6 figures and 12 references, 11 of which are Soviet, 1 English.

ASSOCIATION: Institut metallurgii Ural'skogo filiala, AN SSSR  
(Institute of Metallurgy, Ural Branch Ac.Sc., USSR)

SUBMITTED: January 3, 1957.

Card 4/4 1. Copper sulfide--Oxidation 2. Temperature--Effects

STARKOV, L.N.; KOCHNEV, M.I.

Reduction of lower nickel and cobalt sulfides. Trudy Inst.  
met. UFAN SSSR no.4:35-38 '58. (MIRA 12:10)  
(Sulfides--Metallurgy)

STARKOV, L.N.; KOCHNEV, M.I.

Oxidation of lower nickel and cobalt sulfides. Trudy Inst. met.  
UFAN SSSR no.4:39-43 '58. (MIRA 12:10)  
(Sulfides--Metallurgy)